

# **EXHIBITS 1-3**

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# Exhibit 4

Document title: Maxim VR14 Solution Deliver Highest Perfo | Maxim Integrated

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**Viviani 2**

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Hi. I'm James from the Cloud and Data Center Business Unit at Maxim Integrated. Today, I would like to introduce Maxim's VR14 solutions. Maxim's VR14 solutions deliver the highest performance and power density for data centers. Maxim's VR14 solution comprises three main components. The first component is the MAX20856 Power Stage. This pin compatible, 5 millimeter by 6 millimeter common footprint power stage simplifies the supply chain, allowing second sources on a single motherboard design. The monolithic integration reduces parasitics, for improved performance and high efficiency. **The second component is the Boosted Coupled Inductor, or BCL. This patented technology enables a high-density solution with lower output capacitance.** It also has high efficiency and excellent transient performance. The BCL inductor is layout compatible with discrete inductors or with TLVR inductors, as seen in the overlay of the BCL footprint over a common inductor layout. The third component is the MAX20848 VR14 Dual Output Controller. The MAX20848 has internal compensation, minimizing external passive components around the IC and simplifying development. Extensive telemetry reporting and fault logging enable monitoring and aids troubleshooting. The MAX20848 is in a pin compatible, 48-pin, 6 millimeter by 6 millimeter package. On this slide, we compared the output capacitance required to the Intel CRB against the TLVR solution and the BCL solution. We will look at the capacitors in the socket cavity, the channel, and around the inductor. The Intel reference board uses a total of 7.6 millifarad, as seen in the table. Next, we see that the TLVR solution is able to replace the expensive 100-microfarad 0805

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Maxim VR14 solution delivers highest performance and power density for datacenters. This video demonstrates the extreme performance, high efficiency, and ultra-low output capacitance of the Maxim VR14 solution over conventional and new competitive technologies.

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